



PATENT ABSTRACTS OF JAPAN

(11) Publication number: 03140136 A

(43) Date of publication of application: 14.06.1991

(51) Int. Cl. A61B 1/04
G02B 23/24, H04N 5/225, H04N 7/18

(21) Application number: 01279095
(22) Date of filing: 26.10.1989

(71) Applicant: OLYMPUS OPTICAL CO LTD
(72) Inventor: TANIZAWA SHINKICHI

(54) IMAGE PICKUP DEVICE OF ENDOSCOPE

(57) Abstract:

PURPOSE: To suitably and easily enlarge an image and prevent rise in cost by providing a connecting member to and from which an image guide is attached and detached on a housing, providing a part of an objective optical system for forming an observation image transferred by the image guide on an image pickup means by the connecting member, and making the connecting member changeable.

CONSTITUTION: A connector device 8 is engaged to a connecting member 9 of an image pickup device 2, a connector device 8a is connected to a light source unit 3, and a power source is turned on. An inserting part 4 is inserted into the inside of a blood vessel, etc., and illuminating light illuminates the part to be observed. An image of the part to be observed is led to the connector device 8 through an image guide, enlarged to suitable magnification by a zoom lens 29, brought to photoelectric conversion by a solid-state image pickup element 33, and can be observed through a monitor 43. In the case a size of the image is not appropri-

ate, when a zoom ring 19 is turned, movable zoom lenses 26a, 26b move, and magnification of the image is changed. In the case the observation is hindered even if the image is enlarged to the limit by the zoom lens 29 of the connecting member 9, the image is outputted by selecting an image forming optical system 24 which can enlarge the image to a suitable size and the connecting member 9 having the zoom lens 29.

COPYRIGHT: (C)1991,JPO&Japio

